

61

1. (Amended) A method of determining blood pressure, comprising the steps of: providing a pressure sensor; providing an orientation sensing unit; applying said pressure sensor and said orientation sensing unit to an individual's limb to detect the blood pressure prevailing in said limb and the orientation of said limb; and wherein the orientation sensing unit delivers an electrical signal responsive to the detected orientation of the limb, and further providing an evaluating unit for automatically evaluating the blood pressure in response to said electrical signal.

2. (Amended) The method as claimed in claim 1, further comprising the step of correcting the detected blood pressure in response to the detected orientation of the individual's limb.

3. (Amended) The method as claimed in claim 1, further comprising the steps of providing an inclination sensor for detecting the angular position of the individual's limb, and correcting the detected blood pressure in response to said angular position.

4. (Amended) The method as claimed in claim 1 or 2, further comprising the steps of providing a motion sensor, detecting the motion of the individual's limb while the pressure is being sensed, and correcting the detected blood pressure in response to said motion.

5. (Amended) The method as claimed in claim 1, further comprising the steps of providing a display device with a feedback indicative of whether the measurement position is in a correct angular range of the limb from which the measurement is taken, and/or the feedback causes the user, by interaction, to adopt the correct position for measurement.

6. (Amended) A blood pressure measuring device comprising a pressure sensor for generating a pressure signal, an application unit for applying the pressure sensor to an individual's limb, an evaluating unit for evaluating the pressure signal, an orientation sensing unit provided in the interior of a housing of the blood pressure measuring device for detecting the limb's orientation, and delivering an electrical signal, responsive to the limb's orientation, to the evaluating unit for automatically evaluating the blood pressure.

7. (Amended) The blood pressure measuring device as claimed in claim 6, wherein the evaluating unit comprises a correcting unit for correcting the pressure signal in response to the detected orientation.

8. (Amended) The blood pressure measuring device as claimed in claim 6, wherein the orientation sensing unit comprises an inclination sensor which detects the inclination of the individual's limb to which the pressure sensor is applied.

9. (Amended) The blood pressure measuring device as claimed in claim 6, wherein a motion sensing unit for detecting a motion of the individual's limb, is provided, and said evaluating unit comprises a correcting unit for correcting the pressure signal in response to the detected motion, in particular the speed or acceleration.

10. (Amended) The blood pressure measuring device as claimed in claim 9, wherein said motion sensing unit comprises an inclination sensor and a differentiating unit connected thereto.

11. (Amended) The blood pressure measuring device as claimed in claim 8, wherein the orientation sensing unit and the pressure sensor are connected to the evaluating unit via a timing unit.

12. (Amended) The blood pressure measuring device as claimed in claim 9, wherein a storage unit is provided for the storage of reference data.

13. (Amended) The blood pressure measuring device as claimed in claim 10, wherein the application unit for applying the pressure sensor is constructed to fit an individual's wrist.

14. (Amended) The blood pressure measuring device as claimed in claim 11, further comprising a display device providing a readout, in the form of two arrows pointing in opposite directions, of a correct and/or incorrect angular range or a movement of the blood pressure measuring device and/or a prompt for correcting the measurement position.

15. (Amended) The blood pressure measuring device as claimed in claim 12, further comprising a measurement value storage or a device for determining the validity of the measurement results, enabling a readout of improper measurement conditions to be provided in response to the measurement position, the measurement inclination angle, or any movement taking place during the measurement cycle.